

## REMARKS

This Amendment is responsive to the Office Action mailed September 21, 2004. By the present amendment, Claims 1, 3-6, 9-15, 17-21, 23-28 remain pending in the application. Claims 2, 7, 8, 16, 22 and 29-37 have been cancelled without prejudice.

### REJECTION UNDER 35 U.S.C. §102

Claims 1, 4, 6-7, 9-12, 15-16, 18-21, 23-25, 27, 29-31, 33-34 and 36 were rejected under 35 U.S.C. §102(b) as being anticipated by Kovacs (U.S. Patent No. 5,816,496). For the following reasons, this rejection is respectfully traversed.

Claim 1 has been amended to more positively recite that the humidification system includes a vessel having an inlet valve for admitting water into said vessel, as well as a drain valve in communication with said vessel. Claim 1 has further been amended to recite a controller for controlling said drain valve and said inlet valve, and for turning on and off said microwave oven, said controller further controlling said drain valve such that an entire quantity of heated water is drained from said vessel before said controller causes said inlet valve to admit a fresh quantity of water into said vessel.

This structure and operation is not shown or suggested by Kovacs. Kovacs is directed to a gas fired humidifier in which a given quantity of water is admitted through an inlet valve assembly 23 into a water reservoir 21. A heat exchanger located underneath the water reservoir 21 heats the water admitted into the reservoir to cause a generation of steam. A drain overflow 219 is used during a second cycle after an initial quantity of water has been heated to a boiling point to generate steam. The drain conduit 19 allows excess water in the chamber 21 to be drained therefrom as fresh water is admitted into the chamber 21. This operation is described in more detail in column 6,

lines 22-67 and column 7, lines 1-24. It is important to note that with the system of Kovacs, there appears to be the possibility that sediment or particles in the water could remain within the chamber 21 even while fresh water is admitted. The chamber is never emptied fully during any of its operating cycles, but rather fresh water is admitted after a previous quantity of water has been heated in an effort to flush out the sediment.

The system of the present invention is constructed and operates differently from that disclosed in Kovacs. The present system makes use of a vessel 12 into which a fresh quantity of water is admitted. The vessel 12 is disposed within an oven 14, in one preferred form a microwave oven, which heats the water sufficiently to generate steam. The steam rises through conduit 26 and is dispersed into an airflow flowing within conduit 28. The steam humidifies the airflow before the airflow reaches a cabin area of an aircraft or other vehicle or room. Importantly, the present system operates in connection with a controller 16 that causes a drain valve 38 to be opened to fully drain the entire quantity of water within the vessel 12 before a fresh quantity of water is admitted from the water reservoir 22 (Fig. 1 of the application). The controller admits fresh water by controlling a valve 20 to cause a precise quantity of potable water to be admitted into the vessel 12. By fully draining the vessel 12 of its entire contents before admitting a new quantity of fresh water, any sediment remaining in the vessel 12 is fully drained from the vessel. This operation is believed to be even more favorable than the operation disclosed in Kovacs because it ensures that sediment does not remain in the vessel 12, which could potentially shorten the life of the vessel 12.

Claim 15 has been amended along lines similar to the amendments of Claim 1.

For at least these reasons, reconsideration and withdrawal of the rejection under 35 U.S.C. 102(b) in view of Kovacs is respectfully requested.

#### **REJECTION UNDER 35 U.S.C. §103**

Claims 2-3, 5, 13-14, 17, 26, and 28 were rejected under 35 U.S.C. §103(a) as being unpatentable over Kovacs as applied to Claims 1, 4, and 15 and further in view of Izzo (U.S. Patent No. 6,064,047).

In view of the amendments to the independent claims and the remarks regarding the structure and operation of the system in Kovacs, it is believed that this rejection has been rendered moot. Reconsideration and withdrawal of this rejection is therefore respectfully requested.

Claims 8, 22, 32, 35 and 37 were rejected under 35 U.S.C. 103(a) as being unpatentable over Kovacs as applied to Claims 1, 15, and 20-21 and further in view of Ellsworth (U.S. Patent No. 5,699,983). Again, in view of the amendments to the pending independent claims and the remarks concerning Kovacs, it is believed that this rejection has been rendered moot. Reconsideration and withdrawal of the rejection against the remaining pending claims is therefore respectfully requested.

#### **CONCLUSION**

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt

and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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